in a capsule (taken from 34 specimens) as being near 40 and the range from 28 to 58. "The number varies in different localities and is doubtless dependent on the food of the female insect. In several capsules obtained where amylaceous food was abundant the average was much higher than in a much greater number of capsules obtained from a place where fatty food was the only diet."

In the same place on a later page (p. 302) he again states: "Taschenberg (46) claims that the female regularly lays only one capsule and dies soon after its deposition. My observations on fifty females, whose wings were clipped as soon as they had formed their first capsule, have convinced me that they certainly lay two perfect capsules as a rule, and possibly more, in the course of the year." Wheeler is also certain that the young hatch without assistance from the female a fact easily observed by keeping egg-capsules isolated and protected from dryness. The young escape without difficulty from them.

It follows from what has been written in this connection that the total number of eggs deposited by single females of this species will have to be determined by observation on living females kept under as natural conditions as possible. The number must average at or above 80.

A New American Sitarine Beetle (Col., Lyttid.).

By Creighton Wellman, Oakland, California.

The writer recently received for determination from Professor S. J. Hunter, of the University of Kansas, a collection of Lyttidae secured last June by Mr. F. X. Williams, of the same University, in Gove County, Kansas. Among the specimens are a series found by Mr. Williams in bees' nests and which represent an interesting new species described in the following paper.

These insects belong to the genus *Hornia* Riley (hitherto known to contain but a single species) which is the only genus representative of the Sitarini yet found in the western hem-

isphere with the exception of the Old and New Mexican genus *Leonidia* Ckll. (containing two species) from which *Hornia* may be separated by the following table:

1. (2) Antennae of 10 articles, abdomen partly membranous, claws unarmed ..... **Hornia** Riley.
2. (1) Antennae of 10 articles, abdomen entirely subcorneous, claws armed with a long basal spine.....**Leonidia** Ckll.

The new *Hornia* may be characterized as follows:

Hornia gigantea n. sp.

Color, head dark castaneous with irregular ferrugineous markings on the frons and vertex, thorax black clouded with castaneous, scutellum brownish black, elytra transparently ferrugineous the sutural margins slightly infuscate, abdomen with chitinous portions colored much as head and thorax, legs black; *head* broadly triangular, back and sides with black pubescence; *labrum* transverse, somewhat excavated on its upper surface, apically broadly rounded, the free edge thickly fringed with short golden hairs a few of which are paler and subsetaceous, the lateral margins slightly raised, the punctuation finer and thicker towards the center; *clypeus* transverse, anterior border almost straight, sides and posterior border somewhat convex, punctuation rather stronger and more irregular than that of labrum; *mandibles* black, robust, rather sharply truncate; *labial palpi* with last article longer than the other two and fusiform, the extreme apex knobbed; *maxillary palpi* with first article minute, second very long, obconical, third shorter, also obconical, the last rather shorter than preceding, fusiform (slightly obconical) apex broadly and roundly truncate; *antennae* submoniliform, first article shortly subglobose, second similar but smaller, third to tenth gradually becoming more cylindrical and slenderer, last article slightly longer, apically narrowed and truncate, the joint between the tenth and eleventh articles indistinct; *eyes* small; *neck* distinct, head and thorax not closely joined; *pronotum* convex, almost subglobose, narrowed in front and behind, posterior margin everted, pubescence black and most abundant at sides; *scutellum* transverse, roundly triangular, with a few deep punctures; *elytra* irregularly and roundly triangular, ora somewhat raised but not prominent, surface irregularly rugose, with a few erect black hairs; abdomen large, as in *Meloe* L., membranous, nine dorsal and seven ventral chitinous plates obviously visible; *legs* with femora robust, sparsely pubescent, tibiae more strongly pubescent; *tarsi* small, claws slender.

Sexual characters: ♂, the punctuation of the head is sparse, fine and deep, the antennae reach to the middle of the elytra (5.5 mm. in

the type), the thorax is sparsely and finely punctured, a few coarse punctures intermixed in the center of the disk, the eyes are reniform, the scutellum small, the elytra about twice as large as in the ♀, and the front tibiae armed; ♀, the head is more coarsely sculptured, the punctures being larger, thicker and more irregular, the antennae reach not quite to the middle of the thorax (3.5 mm. in type), the thorax is very coarsely and strongly punctured, especially on the anterior portion of the disk, the eyes are longly oval, the scutellum large, the elytra much smaller and more hairy than in the ♂, and the front tibiae unarmed.

Early stages: Exuvia of third larva hairless and unarmed, nymph (almost completely transformed), ♂, much as in imago but not chitinized.

Length, ♂, 19 mm.; *width*, 6.7 mm.; ♀, length, 19 mm.; width, 7.2 mm. (types); extremes, 24x9.5 mm. ♂, 14x5.1 mm. ♀.

Geog. Dist., Gove Co., Kansas (2813 ft.), June, 1910, "parasite in the nests of *Anthophora occidentalis*," 17 specimens (*F. X. Williams*).

Types (♂, ♀, nymph, larval skin) in the collection of the University of Kansas; *cotypes*: eight in the collection of the University of Kansas, six in the writer's collection.

The variation in the size of the elytra, in the color and in the dimensions of the specimens is considerable. They may be told at a glance from the only other species in the genus (*minutipennis* Riley) by the marked difference in facies. The following table will facilitate the more exact separation of the two species:

1. (2) Light ferrugineous, head slightly wider than pronotum, which is subparallel at sides ..... **minutipennis** Riley.
2. (1) Dark castaneous, head almost a third wider than pronotum, which is markedly arcuate at sides..... **gigantea** Wellm.

The species just tabulated represent the extreme of degeneration from parasitic habits as it occurs among the Lyttidae, and Mr. Williams' discovery is most important, suggesting as it does that further careful examination of bees' nests may reveal other striking additions to our coleopterous fauna.

Professor H. F. Wickham, Professor of Entomology at the State University of Iowa at Iowa City, Iowa, wrote in November: "Although entomology is entirely elective here, I have 100 students working at it."